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On the knowledge of the clearwing moth (Lepidoptera, Sesiidae) of the Maliau Basin, Sabah, Borneo

Yutaka ARITA[1], Oleg G. GORBUNOV[2] and Maryati MOHAMED[3]

[1]Zoological Laboratory, Faculty of Agriculture, Meijo University,
Tempaku-ku, Nagoya, 468-8502 Japan; e-mail: arita@ccmfs.meijo-u.ac.jp
[2]A. N. Severtsov Institute for Problems of Ecology & Evolution, Russian Academy of Sciences,
Leninsky prospekt 33, Moscow V-71, 119071 Russia; e-mail: ogorbu@orc.ru
[3]Institute for Tropical Biology and Conservation, Universiti Malaysia Sabah,
Locked Bay 2073, 88999 Kota Kinabalu, Sabah, Malaysia

Abstract Two new genera, namely *Bidentotinthia* Arita & Gorbunov gen. nov. and *Tarsotinthia* Arita & Gorbunov gen. nov., and three new species, *viz. Bidentotinthia borneana* Arita & Gorbunov sp. nov., *Tarsotinthia albogastra* Arita & Gorbunov sp. nov., and *Scoliokona hyalina* Arita & Gorbunov sp. nov. are described from Sabah, Malaysia.

Key words Lepidoptera, Sesiidae, new genera, new species, Oriental Region, Borneo, taxonomy.

Introduction

The present paper is a result of a short-term Maliau Basin Expedition organized by Universiti Malaysia Sabah. It is based on specimens of the clearwing moths (Lepidoptera, Sesiidae) collected on the 6th-12th of May 2001 by the senior author in the environs of Agathis Camp on the mountain slope of the Maliau Basin, Sabah, Malaysia. Though the collected material consists of a few species only, all of them appear to be new to science. All of the specimens were collected with the use of artificial sex pheromone lures. Besides that, we erected two new genera for two new species of the tribe Tinthiini, *Bidentotinthia borneana* Arita & Gorbunov gen. et sp. nov. and *Tarsotinthia albogastra* Arita & Gorbunov gen. et sp. nov. The third new species described herein, *Scoliokona hyalina* Arita & Gorbunov sp. nov., becomes the third species of the corresponding genus which is a representative of the tribe Paranthrenini.

The types of these new species are deposited in the following collections abbreviated in the text as follows:

ITBC—Institute for Tropical Biology and Conservation, Universiti Malaysia, Sabah, Kota Kinabalu.
MNHAH—Museum of Nature and Human Activities, Hyogo, Japan.

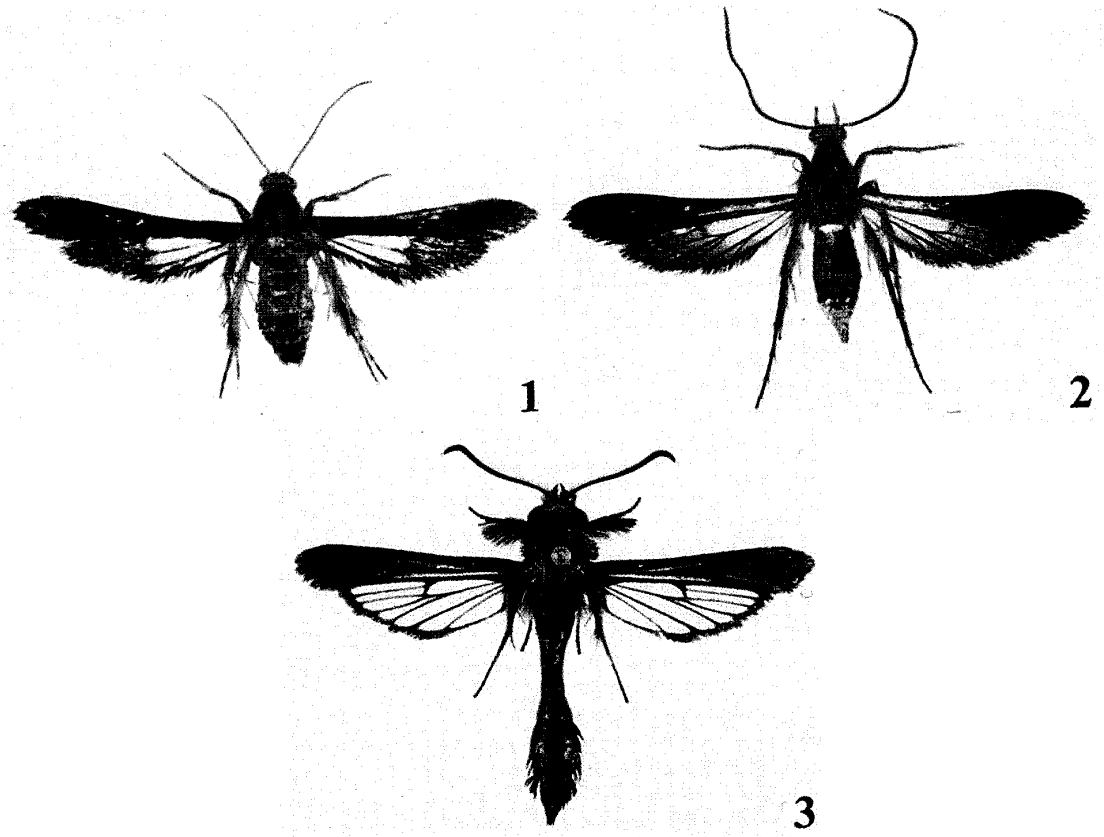
Bidentotinthia Arita & Gorbunov **gen. nov.**

Type species: *Bidentotinthia borneana* Arita & Gorbunov sp. nov.

Description. Medium-sized Tinthia-like clearwing moths with alar expanse about 18 mm. Head with antenna filiform, shortly ciliate in male; frons smooth-scaled; labial palpus smooth-scaled, short, horizontal; vertex smooth-scaled, overlapping upper half of frons; proboscis long, well-developed, functional; occipital fringe with setaceous scales. Thorax

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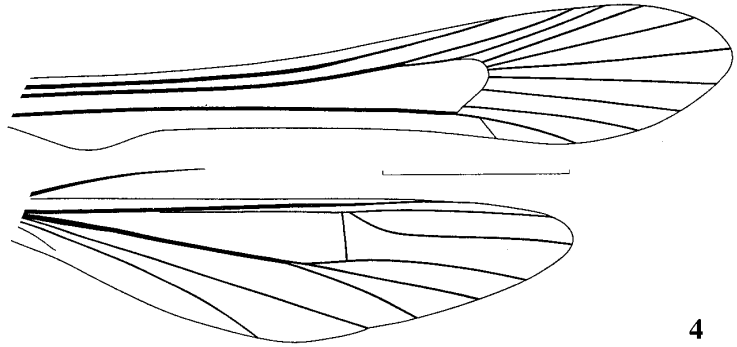
Figs 1–3. Adults 1. *Bidentotinthia borneana* Arita & Gorbunov gen. et sp. nov. Holotype ♂. Alar expanse 18.3 mm (ITBC). 2. *Tarsotinthia albogastra* Arita & Gorbunov gen. et sp. nov. Holotype ♂. Alar expanse 23.0 mm (ITBC). 3. *Scoliokona hyalina* Arita & Gorbunov sp. nov. Holotype ♂. Alar expanse 32.6 mm (ITBC).

without hair-like scales. Legs smooth-scaled; all tibiae with a tuft of elongate pointed scales both dorso-basally and dorso-distally; both fore and hind basal tarsomere and three mid basal tarsomeres with elongate pointed scales posteriorly. Abdomen smooth-scaled; anal tuft almost undeveloped. Forewing entirely opaque; veins R_1, R_2 and R_3 parallel; distance between bases of veins R_4 and R_5 half that between veins R_3–R_4 and R_5–M_1; vein CuA_2 well-developed (Fig. 4). Hindwing transparent in basal half and opaque in distal half; vein M_2 arising from Sc–M_1 somewhat distally of cross-vein; distance between fork of veins CuA_1 and CuA_2 about half that between base of veins M_3 and cross-vein; vein CuP well sclerotized throughout; vein 1A well-developed; vein 2A extremely thin and short, not reaching edge of wing; vein 3A undeveloped (Fig. 4). Male genitalia (Figs 6a–e) with tegumen-uncus complex relatively large; uncus well-sclerotized, with two small, strong, beak-shaped teeth posteriorly (Fig. 6b); tuba analis with scaphium undeveloped, subscaphium narrow, well-sclerotized (Fig. 6a); valva (Fig. 6c) oval covered with short setae throughout; sacculus not separated; saccus (Fig. 6d) short and broad, rounded basally; vinculum long; aedeagus (Fig. 6e) long, about twice as long as length of valva, with a small tooth dorso-medially, with coecum penis well developed, posterior-laterally on right side narrowly membranous, with the effect of rolling this part into two tubes; vesica without cornuti. Female genitalia unknown.

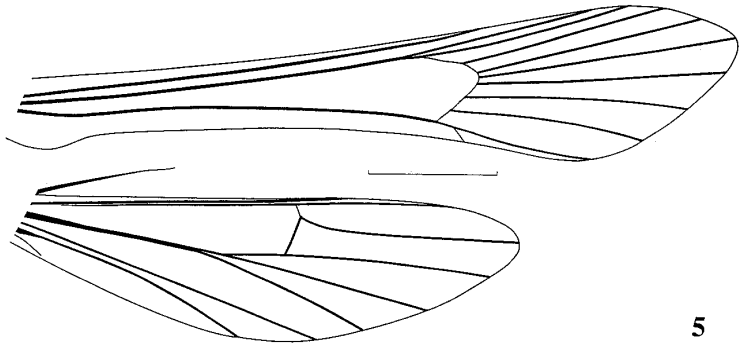
Diagnosis. *Bidentotinthia* Arita & Gorbunov gen. nov. looks superficially like *Tinthia* Walker, 1865 ["1864"] (type species: *Tinthia varipes* Walker, 1865 ["1864"]), *Microsphecia* Bartel, 1912 (type species: *Sphinx tineiformis* Esper, 1789), *Zenodoxus* Grote & Robinson,

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Figs 4–5. Wing venation of Tinthiini. 4. *Bidentotinthia borneana* Arita & Gorbunov gen. et sp. nov. 5. *Tarsotinthia albogastra* Arita & Gorbunov gen. et sp. nov. Scale bar: 2.0 mm.

1868 (type species: *Zenodoxus maculipes* Grote & Robinson, 1868), *Sophona* Walker, 1856 (type species: *Sophona halictipennis* Walker, 1856) and *Negotinthia* Gorbunov, 2001 (type species: *Paranthrena* [sic!] *myrmosaeformis* Herrich-Schäffer, 1846), but it is easily distinguished from all these mentioned genera and all other taxa of the tribe Tinthiini by the conformation of the male genitalia, especially by the shape of the uncus and aedeagus (*cp.* Figs 6a–e with corresponding figs in Eichlin, 1986; Kallies & Arita, 2001; Arita & Gorbunov, 2001; Gorbunov & Arita, 2001).

Bionomics. The larval biology is unknown. The type species was collected in May.

Constitution. At present, we include in this new genus only the type species, *Bidentotinthia borneana* Arita & Gorbunov sp. nov.

Range. Oriental Region: Borneo.

Etymology. The name of this new genus *Bidentotinthia* partly derives from a closely related genus *Tinthia* and from Latin "*bidens*" for bicuspid, corresponding to the conformation of the uncus of the male genitalia of the type species. Gender is feminine.

Bidentotinthia borneana Arita & Gorbunov **sp. nov.** (Figs 1, 4, 6a–d)

Description. Male (holotype) (Fig. 1). Alar expanse 18.3 mm; body length 6.9 mm; forewing 8.3 mm; antenna 4.8 mm.

Head: antenna dorsally yellow-orange with dark brown to black tip, ventrally dark brown to black; scapus yellow-orange with a few grey-brown scales ventrally; frons, labial palpus,

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vertex and occipital fringe yellow-orange with golden sheen.

Thorax: patagia yellow-orange with golden-purple sheen; tegula dorsally dark brown to black with purple-green sheen, laterally orange with golden sheen; mesothorax dark brown with purple-green sheen; metathorax yellow-orange with a few brown and dark brown scales medially, with a tuft of orange setaceous scales; thorax laterally dark grey-brown with green-purple sheen, posteriorly with admixture of yellow-orange to orange scales; posteriorly metepimeron and metameron yellow-orange with golden sheen.

Legs: neck plate yellow-orange; fore coxa, fore femur and fore tarsus yellow-orange with golden sheen throughout; fore tibia yellow-orange with admixture of a few dark brown scales dorsally; mid coxa yellow-orange with golden sheen; mid femur yellow-orange with golden sheen, with a few grey-brown scales with bronze-purple sheen posteriorly; mid tibia exterior-dorsally yellow-orange with golden sheen, interior-ventrally dark brown to black with bronze-violet sheen; spurs yellow-orange with golden sheen, with admixture of dark brown scales with purple-green sheen externally; mid tarsus yellow-orange with golden sheen, with admixture of dark brown scales with purple-green sheen interior-ventrally on basal tarsomere and posterior-dorsally on each tarsomere; hind coxa yellow-orange with golden sheen; hind femur yellow-orange with golden sheen, mixed with dark brown to brown with bronze-purple sheen scales posterior-distally; hind tibia yellow-orange with golden sheen, with a few dark brown to black scales with green-purple sheen posterior-dorsally; hind tarsus yellow-orange with golden sheen, with admixture of dark brown to black scales with green-violet sheen posterior-dorsally on each tarsomere.

Abdomen: dorsally dark brown to black with green-purple sheen, with a narrow light brown to dark orange stripe posteriorly on each tergite; tergites 1–3 densely mixed with light brown to dark orange scales laterally; ventrally yellow-orange with golden sheen; anal tuft minute grey-brown with bronze-purple sheen, mixed with dirty yellow-orange scales.

Forewing: dark brown to black with dark violet sheen, with a few light brown to dark orange scales both basally and anally; transparent areas undeveloped; cilia dark brown with bronze sheen.

Hindwing: transparent in basal half; distal half opaque, dark brown with blue-violet sheen; cilia dark brown with purple-bronze sheen, anally orange.

Male genitalia (paratype, genital preparation Nos GA-301 and 1841 YA) (Figs 6a–e). Tegumen-uncus complex relatively large; uncus well-sclerotized, with two small, strong, beak-shaped teeth posteriorly (Fig. 6b); tuba analis with scaphium undeveloped, subscaphium narrow, well-sclerotized (Fig. 6a); valva (Fig. 6c) oval covered with short setae throughout; sacculus not separated; saccus (Fig. 6d) short and broad, rounded basally; vinculum long; aedeagus (Fig. 6e) long, about twice as long as length of valva, with a small tooth dorso-medially, with coecum penis well developed, posterior-laterally on right side narrowly membranous, with the effect of rolling this part into two tubes; vesica not armed.

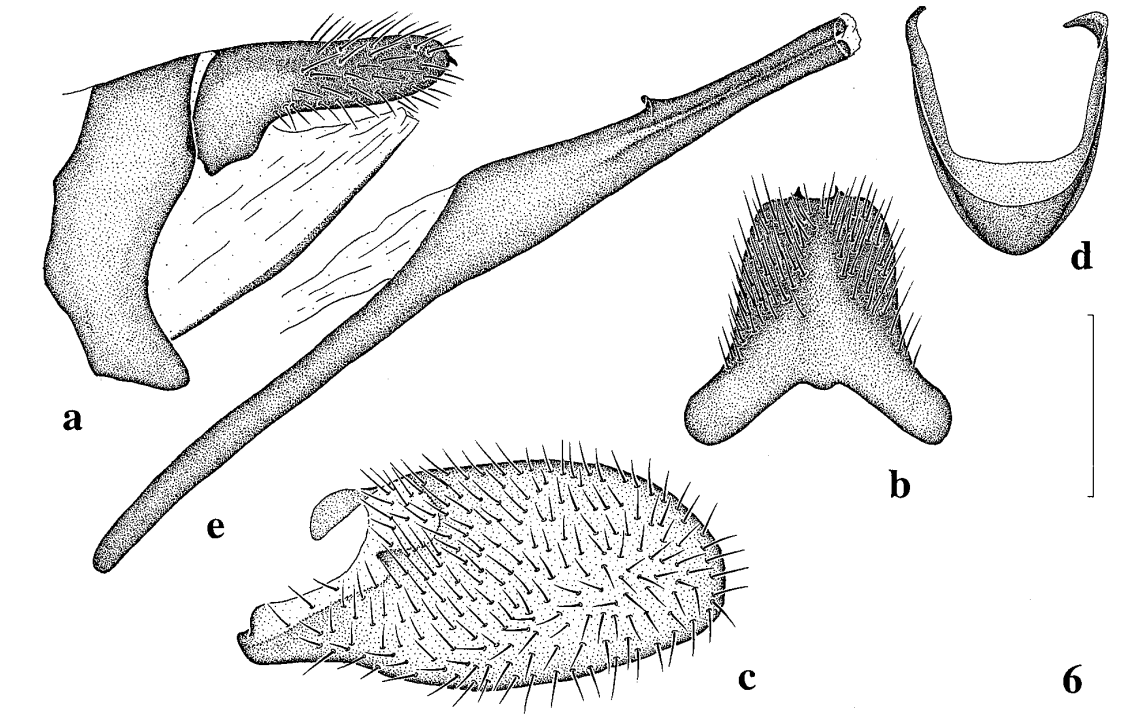
Female. Unknown.

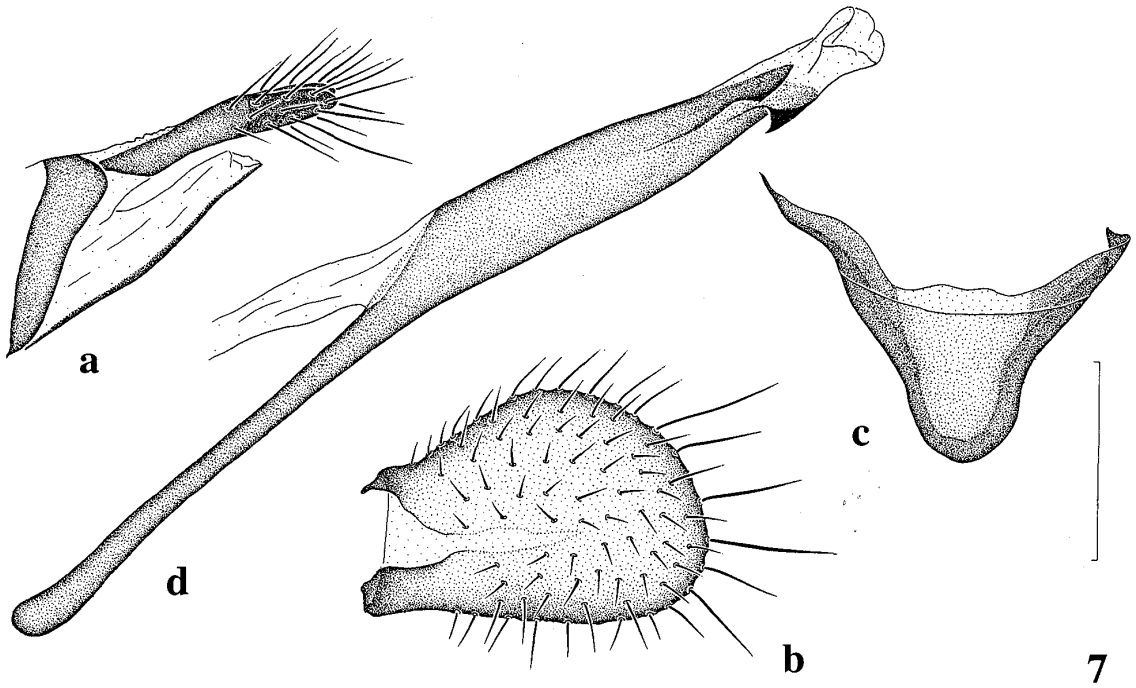
Individual variability. Unknown.

Differential diagnosis. Superficially this new species is somewhat similar to *Trichocerota brachythyra* Hampson, 1919 and *Tarsotinthia albogastra* Arita & Gorbunov sp. nov. *Bidentotinthia borneana* Arita & Gorbunov sp. nov. can be separated from the former species compared by the coloration of the labial palpus and occipital fringe (orange-scarlet through-

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Figs 6–7. Male genitalia of Tinthiini. 6. *Bidentotinthia borneana* Arita & Gorbunov gen. et sp. nov., holotype (genital preparation Nos GA-301 and 1841 YA). a. Tegumen-uncus complex, lateral view. b. *Ditto*, dorsal view. c. Valva. d. Saccus. e. Aedeagus. 7. *Tarsotinthia albogastra* Arita & Gorbunov gen. et sp. nov., holotype (genital preparation Nos GA-302 and 1847 YA). a. Tegumen-uncus complex. b. Valva. c. Saccus. d. Aedeagus. Scale bar: 0.5 mm.

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out in the species compared), mid legs (femora scarlet, spurs black, tarsus black with admixture of scarlet scales posterior-ventrally in *T. brachythyra*), abdomen (black with leaden sheen throughout in the species compared). This new species differs from the latter species compared by the coloration of the antenna (dark brown to black with green-blue sheen, with yellow scales apically and yellow-orange scales dorso-basally in *Tarsotinthia albogastra* Arita & Gorbunov sp. nov.), thorax laterally (orange with purple-golden sheen, with elongated white spot on both mesepimeron and metepimeron) and posteriorly (metepimeron and metameron posteriorly white with golden sheen in *Tarsotinthia albogastra* Arita & Gorbunov sp. nov.), abdomen (dorsally red-orange with golden sheen; tergite 1 with admixture of white scales posterior-medially; tergites 4 and 5 with admixture of dark brown scales with bronze sheen; tergites 5–7 each densely mixed with white scales; ventrally white with golden hue; sternites 5–7 each with admixture of dark grey-brown scales with bronze sheen in the species compared), by the normal length of the hind leg (long because of two hind basal tarsomeres about as long as hind tibia in *Tarsotinthia albogastra* Arita & Gorbunov sp. nov.) and by the completely opaque forewing (anterior and posterior transparent areas short and narrow in the species compared). Besides that, these two species can be distinguished by the generic characters, especially by the hindwing venation (*cp.* Figs 4 and 5) and conformation of the male genitalia (*cp.* Figs 6a–e with Figs 7a–d).

Bionomics. The host plant and larval bionomics are unknown. The type was collected in May.

Habitat. The holotype was collected at a border of a tropical rain forest.

Distribution. Known from the type-locality only.

Material examined. 1 ♂ (holotype) (Fig. 1), Malaysia, Sabah, Maliau Basin, Agathis Camp, 12.V.2001, Y. Arita leg. (genital preparation Nos GA-301 and 1841 YA) (ITBC).

Etymology. This new species is named after the island of Borneo, where it was collected.

Tarsotinthia Arita & Gorbunov **gen. nov.**

Type species: *Tarsotinthia albogastra* Arita & Gorbunov sp. nov.

Description. Medium-sized, long-legged, *Tinthia*-like clearwing moths with alar expanse about 23 mm. Head with antenna filiform, shortly ciliate in male; frons smooth-scaled; labial palpus smooth-scaled, turned-up, reaching upper margin of frons; vertex smooth-scaled, overlapping upper half of frons; proboscis long, well-developed, functional; occipital fringe with setaceous scales. Thorax without hair-like scales. Legs smooth-scaled; fore and mid tibiae with a tuft of elongate pointed scales both dorso-basally and dorso-distally; hind tibia with somewhat protruded scales and with elongate pointed scales both dorso-medially and dorso-distally; all tarsomeres with elongate pointed scales; hind tarsus long, two basal tarsomeres about as long as hind tibia. Abdomen smooth-scaled; anal tuft almost undeveloped. Forewing with anterior and posterior transparent areas short and narrow; external transparent area undeveloped; veins R_1, R_2 and R_3 parallel; distance between bases of veins R_4 and R_5 about half that between veins R_3–R_4 and about as long as between veins R_5–M_1; vein CuA_2 well-developed (Fig. 5). Hindwing transparent in basal half and opaque in distal half; cross-vein V-shaped; vein M_2 arising from about upper third of cross-vein; distance between fork of veins CuA_1 and CuA_2 about one third of that between base of veins M_3 and cross-vein; vein CuP well sclerotized throughout; vein 1A well-developed; vein 2A extremely thin and short, not reaching edge of wing; vein 3A undeveloped (Fig. 5). Male genitalia

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(Figs 7a–d) with tegumen-uncus complex relatively small; uncus well-sclerotized, covered with numerous long setae, distally divided into two finger-shaped projections (Fig. 7a); tuba analis with scaphium undeveloped, subscaphium narrow, slightly sclerotized (Fig. 7a); valva (Fig. 7b) triangular-oval covered with short setae throughout and with a few long setae at posterior margin; saccus (Fig. 7c) short and broad, rounded basally; vinculum narrowly long; aedeagus (Fig. 7d) long, about thrice as long as length of valva, with coecum penis well-developed, posteriorly with two large and strong teeth; vesica not armed. Female genitalia unknown.

Diagnosis. By the V-shaped cross-vein of the hindwing, long hind legs and structure of the male genitalia, this new genus cannot be confused with any taxa of the tribe Tinthiini. But superficially it is somewhat similar to some long-legged genera of the tribe Osminiini, such as *Aschistophleps* Hampson, 1893 (type species: *Aschistophleps lampropoda* Hampson, 1893) and *Pyrophleps* Arita & Gorbunov, 2000 (type species: *Pyrophleps nigripennis* Arita & Gorbunov, 2000). *Tarsotinthia* Arita & Gorbunov gen. nov. easily differs from them by both generic and tribal signs (see, for example Arita & Gorbunov, 2000).

Bionomics. The larval biology is unknown. The type species was collected in May.

Constitution. At present, we include in this new genus only the type species, *Tarsotinthia albogastra* Arita & Gorbunov sp. nov.

Range. Oriental Region: Borneo.

Etymology. The name of this new genus, *Tarsotinthia* partly derives from a closely related genus *Tinthia* and from "tarsus", corresponding to the long-legged habitus of the type species. Gender is feminine.

Tarsotinthia albogastra Arita & Gorbunov **sp. nov.** (Figs 2, 5, 7a–d)

Description. Male (holotype) (Fig. 2). Alar expanse 23.0 mm; body length 9.9 mm; forewing 10.2 mm; antenna 7.1 mm.

Head: antenna dark brown to black with green-blue sheen, with yellow scales apically and yellow-orange scales dorso-basally; scapus yellow-orange; frons, labial palpus, vertex and occipital fringe yellow-orange.

Thorax: dorsally red-orange to orange with purple-golden sheen; laterally orange with purple-golden sheen, with elongated white spot on both mesepimeron and metepimeron; posteriorly metepimeron and metameron white with golden sheen.

Legs: neck plate, fore coxa and fore femur yellow-orange with golden sheen; fore tibia yellow-orange to orange with golden sheen, with a short and narrow black stripe with greenish sheen, dorso-basally; fore tarsus yellow-orange with golden sheen; mid coxa yellow-orange with golden sheen; mid femur, mid tibia and spurs orange with golden sheen; mid tarsus yellow-orange with golden sheen, with admixture of black scales with green-blue sheen dorsally on three distal tarsomeres; hind coxa yellow-orange with golden sheen; hind femur anteriorly yellow-orange with golden sheen, posteriorly white; hind tibia yellow-orange to orange with golden sheen, with a large white spot anterior-ventrally and black spot with green sheen posterior-distally; spurs orange with golden sheen; hind tarsus black with bright green sheen, with admixture of orange scales anterior-ventrally on basal tarsomere and orange, pointed, elongated scales on four basal tarsomeres posterior-ventrally.

Abdomen: dorsally red-orange with golden sheen; tergite 1 with admixture of white scales

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posterior-medially; tergites 4 and 5 with admixture of dark brown scales with bronze sheen; tergites 5–7 each densely mixed with white scales; ventrally white with golden hue; sternites 5–7 each with admixture of dark grey-brown scales with bronze sheen; anal tuft small, mixed with orange, black and white scales.

Forewing: basally, basal part of costal and anal margins and CuA-stem red-orange; remaining opaque surface dark brown to black (paler distally of cross-vein) with dark green-blue sheen; external transparent area undeveloped; anterior and posterior transparent areas short and narrow, covered with semihyaline brownish scales with golden tint; cilia dark brown with purple sheen.

Hindwing: transparent in basal half; distal half opaque, dark brown with greenish sheen; veins black with dark green sheen, with admixture of orange scales basally on veins CuA_1, CuA_2, CuP and 1A; cilia dark brown with purple sheen, anally orange.

Male genitalia (paratype, genital preparation Nos GA-302 and 1847 YA) (Figs 7a–d). Tegumen-uncus complex relatively small; uncus well-sclerotized, covered with numerous long setae, distally divided into two finger-shaped projections (Fig. 7a); tuba analis with scaphium undeveloped, subscaphium narrow, slightly sclerotized (Fig. 7a); valva (Fig. 7b) triangular-oval covered with short setae throughout and with a few long setae at posterior margin; saccus (Fig. 7c) short and broad, rounded basally; vinculum narrowly long; aedeagus (Fig. 7d) long, about thrice as long as length of valva, with coecum penis well-developed, posteriorly with two large and strong teeth; vesica not armed.

Female. Unknown.

Individual variability. Unknown.

Differential diagnosis. This new species cannot be confused with any species of the tribe Tinthiini of the Oriental Region because of its long hind legs. However, superficially it looks somewhat like *Bidentotinthia borneana* Arita & Gorbunov sp. nov., but *Tarsotinthia albogastra* Arita & Gorbunov sp. nov. is separable by a lot of details of the coloration of various parts of the body and by the conformation of the male genitalia (*cp.* corresponding description and illustrations herein).

Bionomics. The host plant and larval bionomics are unknown. The holotype was collected in May.

Habitat. The type specimen was collected at a border of a tropical rain forest.

Distribution. Known from the type-locality only.

Material examined. 1 ♂ (holotype) (Fig. 2), Malaysia, Sabah, Maliau Basin, Agathis Camp, 7. V. 2001, Y. Arita leg. (genital preparation Nos GA-301 and 1847 YA) (ITBC).

Etymology. This new species is named "*albogastra*" because of coloration of the abdomen ventrally.

Scoliokona hyalina Arita & Gorbunov **sp. nov.** (Figs 3, 8a–d)

Description. Male (holotype) (Fig. 3). Alar expanse 32.6 mm; body length 20.5 mm; forewing 14.1 mm; antenna 7.4 mm.

Head: antenna dark brown to black with dark green-violet sheen throughout; scapus dark brown to black with dark greenish sheen; frons throughout dark brown to black with

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greenish sheen; labial palpus black with admixture of white scales on two distal joints both ventrally and dorsally; vertex black with dark violet sheen; occipital fringe dorsally black, laterally silvery-white.

Thorax: patagia black with bright dark green-bronze sheen; tegula dark brown to black with greenish sheen; mesothorax dark brown to black with bronze sheen; metathorax dark brown to black with bronze-green sheen, with a tuft of grey scales; thorax laterally dark brown to black with bright anthracite sheen; posteriorly metepimeron and metameron dark brown with greenish sheen, with grey hair-like scales.

Legs: neck dark brown to black with dark purple sheen; fore leg black with dark purple sheen; mid coxa black with dark purple sheen, with a few pale yellow to yellow scales posterior-medially; mid femur black with dark purple sheen, with a few white scales at posterior margin; mid tibia throughout black with dark purple; spurs yellow with a few black scales; mid tarsus black with dark purple sheen, with admixture of yellow-orange scales on two basal tarsomeres interior-ventrally; hind coxa black with dark purple sheen, with a few pale yellow to yellow scales posterior-medially; hind femur black with dark purple sheen, narrowly silvery-white posteriorly; hind tibia black with bright greenish sheen, with admixture of white hairs dorsally; spurs yellow with a few black scales; hind tarsus black with dark purple sheen, with admixture of yellow-orange scales on two basal tarsomeres interior-ventrally.

Abdomen: black with dark purple-blue sheen throughout; anal tuft black with anthracite sheen, narrowly white posteriorly.

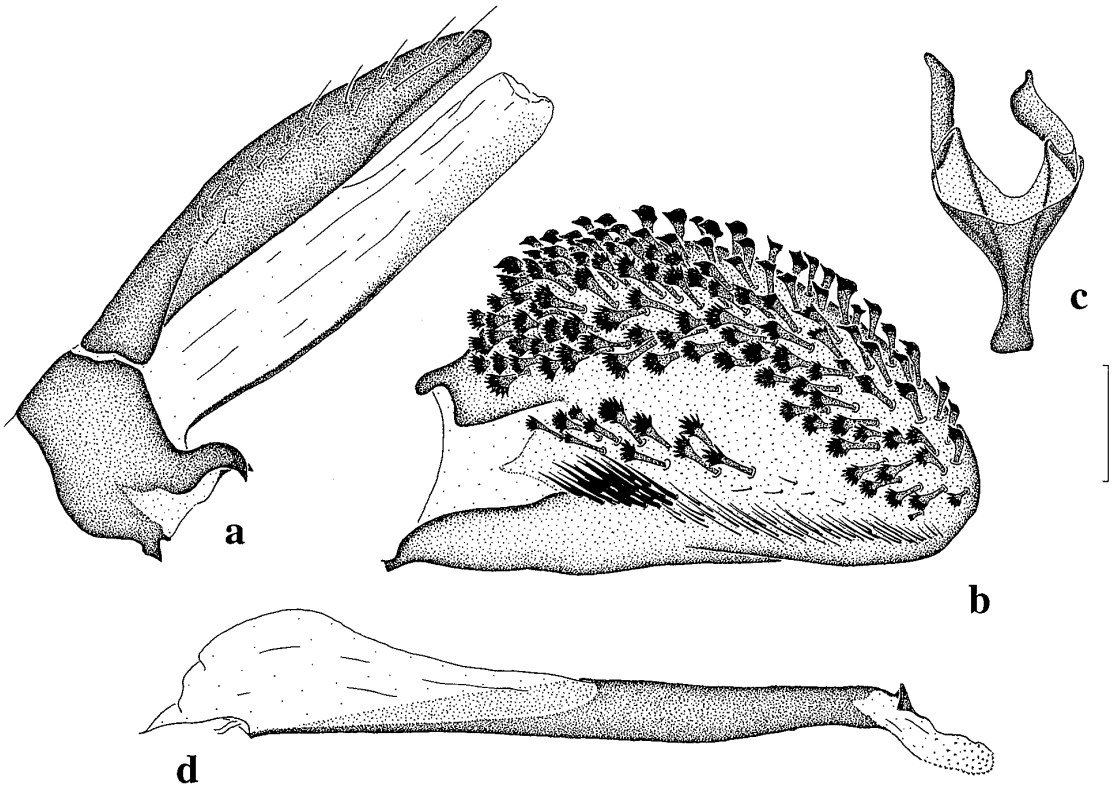


Fig. 8. Male genitalia of *Scoliokona hyalina* Arita & Gorbunov sp. nov., paratype (genital preparation Nos GA-142 and 1826 YA). a. Tegumen-uncus complex. b. Valva. c. Saccus. d. Aedeagus. Scale bar: 0.5 mm.

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Forewing: dark brown to black with bright violet sheen; anterior and external transparent areas undeveloped; posterior transparent area narrow, covered with brownish semihyaline scales; cilia dark brown with bronze-purple sheen.

Hindwing: transparent, basally densely covered with short dark brown to black scales with bright bronze-violet sheen; veins broadly dark brown with violet-purple sheen; discal spot narrow, extending to base of vein M_3, dark brown to black with bright dark violet sheen; outer margin narrow, about as narrow as cilia, dark brown with violet-purple sheen; cilia dark brown with bronze-purple sheen, grey anally.

Male genitalia (paratype, genital preparation Nos GA-142 and 1826 YA) (Figs 8a–d). Uncus relatively broad, well-developed, covered with sparse short setae; tegumen rather broad; gnathos consisting of three beak-shaped hooks; tuba analis with subscaphium narrowly sclerotized (Fig. 8a); valva (Fig. 8b) trapeziform-oval, dorsal third covered with hand-shaped setae, with a row of pointed setae subventrally; medial row of hand-shaped setae present; sacculus with a group of strong pointed setae; saccus (Fig. 8c) slightly shorter than vinculum, somewhat broadened and flattened basally; aedeagus (Fig. 8d) rather thick, slightly longer than valva, with a small sclerotized dentate plate dorso-distally; vesica with numerous minute cornuti.

Female. Unknown.

Individual variability. Coloration virtually constant, slightly variable only in individual size: alar expanse 32.6–36.2 mm; body length 20.5–23.1 mm; forewing 14.1–15.5 mm; antenna 7.4–8.2 mm.

Differential diagnosis. First of all, this new species is the smallest one of the genus (alar expanse 37–49 mm in *S. tetrapora* (Diakonoff, 1968) and 38–39 mm in *S. heptapora* Kallies & Arita, 1998). Further, *S. hyalina* Arita & Gorbunov sp. nov. can be distinguished from *S. tetrapora* by the coloration of the occipital fringe (black throughout in from *S. tetrapora*) and abdomen (tergite 2 with a narrow white stripe posterior-laterally; sternites mixed with white scales in the species compared), by the entirely hyaline hindwing (mostly opaque, with 5 elongate transparent cells in male in from *S. tetrapora*) and by the conformation of the male genitalia, especially by the shape of the saccus (*cp.* Fig. 8c with fig. 26d in Kallies & Arita (1998)). This new species is separable from *S. heptapora* by the coloration of the scapus (white ventrally in the species compared), frons (narrowly white laterally in *S. heptapora*), abdomen (tergite 2 with a narrow white stripe posterior-laterally; tergites 4 and 5 each with a narrow, transverse, white stripe laterally in the species compared) and forewing (with strong bluish sheen in *S. heptapora*), by the entirely transparent hindwing (outer margin broad, surface between veins CuA_1 and CuA_2 completely opaque in the species compared) and by the structure of the male genitalia, especially by the shape of the valva and saccus (*cp.* Fig. 8a–d with fig. 26a–d in Kallies & Arita (1998)).

Bionomics. The host plant and larval bionomics are unknown. The moths were collected in May.

Habitat. Borders of tropical rain forests.

Distribution. Known from the type-locality only.

Material examined. 1 ♂ (holotype) (Fig. 3), Malaysia, Sabah, Maliau Basin, Agathis Camp, 11. V. 2001, Y. Arita leg. (ITBC); 1 ♂ (paratype), same locality, 12. V. 2001, Y. Arita leg. (ITBC); (genital preparation Nos GA-142 and 1826 YA); 1 ♂ (paratype), same locality and

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date, Y. Arita leg. (MNHAH).

Etymology. The name of this new species is taken from Greek "hyalos" for glass and referring to the transparent hindwings of the species.

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摘　　要

ボルネオ島サバ州のマリアウベースンのスカシバガ (鱗翅目，スカシバガ科) の知見 (有田豊・Oleg G. Gorbunov・Maryati Mohamed)

ボルネオ島サバ州のマリアウベースン保護地域で第一著者の有田は 2001 年 5 月 6–12 日の短期間にスカシバガ科の調査を行った．スカシバガ科の調査は合成性フェロモンを用いて行ったが少数の個体が得られたのみであった．そのうちの 2 新属 2 新種と 1 新種を記載した．

Bidentotinthia Arita & Gorbunov gen. nov.

ヒメスカシバガ亜科の Tinthiini 族の *Tinthia* Walker, 1865, *Microsphecia* Bartel, 1912, *Zenodoxus* Grote & Robinson, 1868, *Sophona* Walker, 1856 諸属に外形が似ているが，♂ゲニタリアが異なるので新属を設けた．

Bidentotinthia borneana Arita & Gorbunov sp. nov. (Figs 1, 4, 6a–d)

Trichocerota brachythyra Hampson, 1919 にいくぶん似ているが，ラビアル・パルプス，脚，腹部などの色彩が異なることで区別される．合成性フェロモンに 1 雄のみ飛来した．

Tarsotinthia Arita & Gorbunov gen. nov.

V 字型の横脈や長い後脚，♂ゲニタリアなどによって Osminiini 族の *Aschistophleps* Hampson, 1893, *Pyrophleps* Arita & Gorbunov, 2000 両属と区別される．

Tarsotinthia albogastra Arita & Gorbunov sp. nov. (Figs 2, 5, 7a–d)

長い後脚と腹部裏面が白いことで他の種類と分離できる．合成性フェロモンに 1 雄のみ飛来した

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Scoliokona hyalina Arita & Gorbunov sp. nov. (Figs 3, 8a–d)

S. tetrapora (Diakonoff, 1968), *S. heptapora* Kallies & Arita, 1998 と似ているが，これら 2 種とは後翅に幅広い外縁帯がないことや♂ゲニタリアで区別される．合成性フェロモンに 3 雄のみ飛来した．

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